

CLAIMS

1. Device for authenticating the taking of pictures made up of digital data comprising a picture taking apparatus and a security element carrying out the signing of at least part of the digital data, characterized in that the security element is a detachable element comprising a decryption circuit with secret key  $K_1$ , this element being connected to the picture taking apparatus by an interface circuit provided in the picture taking apparatus.

2. Device according to Claim 1, characterized in that the detachable element incorporates a hashing circuit.

3. Device according to either of <sup>claim 1</sup> ~~Claims 1 and 2~~, characterized in that the detachable element is a chip card.

4. Device according to <sup>claim 1</sup> ~~Claims 1 and 3~~, characterized in that the picture taking apparatus (1) moreover comprises a multiplexing circuit (6) and a circuit (5) for hashing at least one first fraction ( $F_1(VN)$ ) of the digital data in such a way as to generate a first hashed datum ( $m_1$ ), the decryption circuit with secret key  $K_1$  of the chip card (2) carrying out the decryption of the first hashed datum ( $m_1$ ) in such a way as to generate a signature ( $D(m_1)_{K_1}$ ) of the first hashed datum ( $m_1$ ), the signature ( $D(m_1)_{K_1}$ ) and the digital data ( $VN$ ) being transmitted to the multiplexing circuit (6) so as to constitute a multiplexed signal ( $S_1$ ).

5. Device according to <sup>claim 2</sup> ~~Claims 2 and 3~~, characterized in that the picture taking apparatus (1) furthermore comprises a multiplexing circuit (6), a hashing circuit of the chip card carrying out the hashing of at least a first fraction ( $F_1(VN)$ ) of the digital data originating from the picture taking apparatus (8) in such a way as to generate a first hashed datum ( $m_1$ ) and the first hashed datum ( $m_1$ ) is decrypted in the decryption circuit in such a way as to generate a signature ( $D(m_1)_{K_1}$ ) of the first hashed datum

(m1), the signature  $(D(m1)_{K1})$  emanating from the chip card and the digital data (VN) being transmitted to the multiplexing circuit (6) in such a way as to constitute a multiplexed signal (S1).

*Claim 1*  
50 6. Device according to ~~Claims 1 to 5~~, characterized in that the picture taking apparatus (1, 8) is a camera head.

*Claim 1*  
A 7. Device according to ~~Claims 1 to 5~~, characterized in that the picture taking apparatus (1, 10 8) is a photographic apparatus.

8. Device for authenticating digital data emanating from a device according to any one of *Claim 1* ~~Claims 1 to 7~~, characterized in that it comprises a demultiplexer (11) for separating the digital data (VN) 15 and the signature  $(D(m1)_{K1})$ , an encryption circuit with public key  $K2$  for calculating an encrypted datum  $(C(D(m1)_{K1})_{K2})$  on the basis of the signature  $(D(m1)_{K1})$ , a circuit (13) for hashing at least one second fraction  $(F2(VN))$  of the digital data (VN) emanating from the 20 demultiplexer (11) in such a way as to generate a second hashed datum (m2), a comparison circuit (14) for comparing the encrypted datum  $(C(D(m1)_{K1})_{K2})$  with the second hashed datum (m2) in such a way as to constitute a signal (S3) making it possible to verify the 25 authenticity of the digital data.

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